



DATE
10/21/22

PRESENTING CLINICAL SIGNS

PATIENT

History: No clinical signs per O, hx of elevated ALP was in the 700s in 5/2021 and now is 1800s with mild ALT elevation at 190. Not PU/PD at home per o, normal appetite, no c/s/v/d. Exam: grade 1 left systolic heart murmur, dental disease, slightly thin hair coat and thin skin otherwise unremarkable.

Simba Fantis

Current Medications: None at this time.

SPECIES

Lab Results: Elevated ALP in 1800s, ALT 190s, otherwise unremarkable Chem and CBC. USG 1.037.

Canine

Date of Previous IntraPet Ultrasound: No previous.

BREED

Sedation: Declined. Not required to complete full diagnostic ultrasound.

Pomeranian

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

SEX

Urinary System

Neutered Male

Urinary bladder is adequately distended with anechoic contents. No masses or inflammatory changes are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface. Several cystoliths were noted, the largest measured 0.63 cm in diameter. There are intraluminal urethral small cystoliths/mineral debris at the level of the prostate.

AGE

1/15/12

Prostate is normal in size, echotexture and echogenicity for a neutered male.

WEIGHT

17.4 Pounds

Left kidney is normal is size (4.77 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Right kidney is normal is size (4.25 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted.

HOSPITAL NAME

Pleasantville AH

Adrenal Glands

Left adrenal gland is normal in size (1.3 cm long x 0.49 at cranial pole and 0.55 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Gounaris

Right adrenal gland is normal in size (1.48 cm long x 0.63 cm at cranial pole and 0.54 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

INVOICE

17846

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

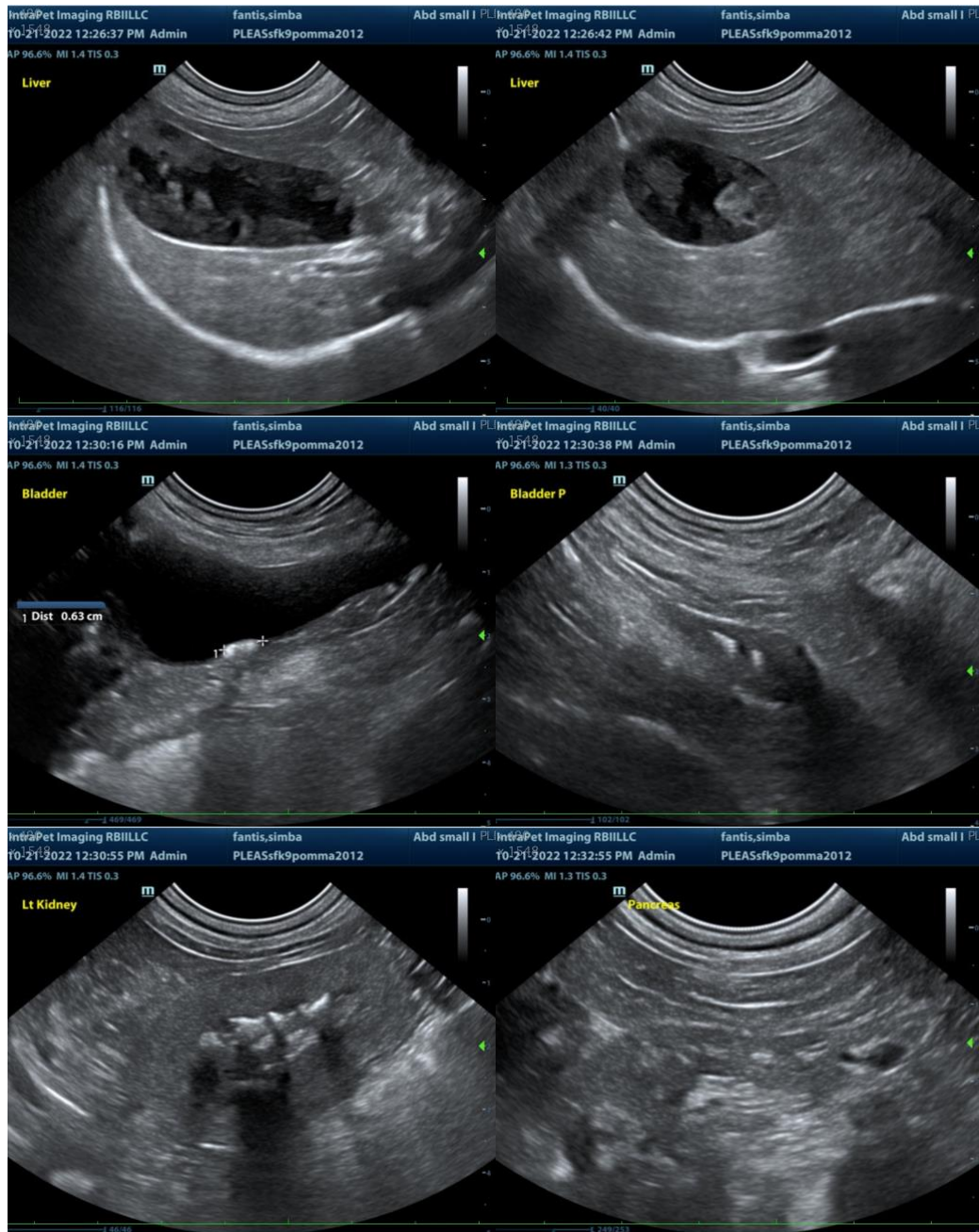
ULTRASONOGRAPHIC FINDINGS

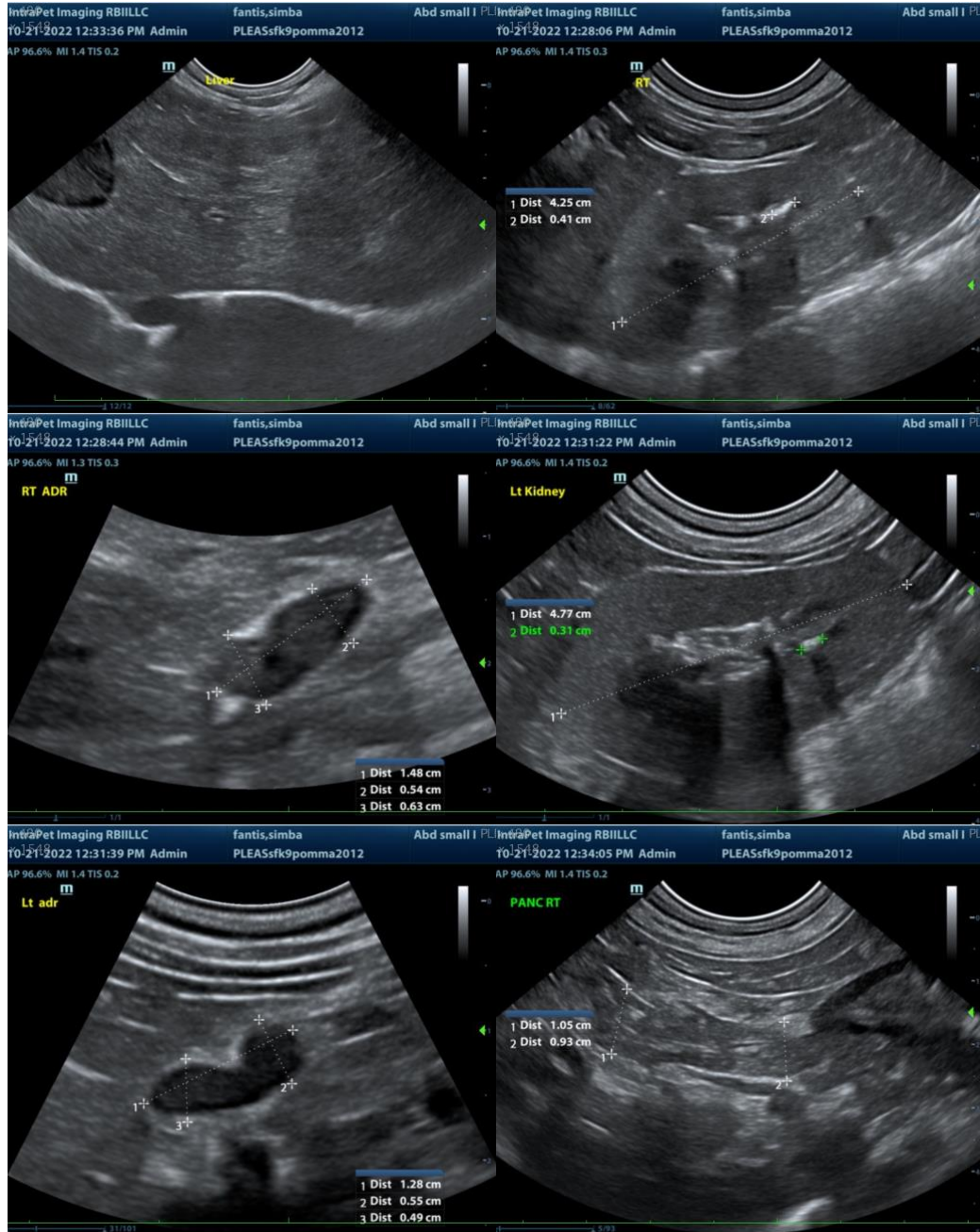
- Emerging mucocele – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- Heterogenous Liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- Pancreatic age-related remodeling – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- Urinary bladder and intraurethral luminal cystoliths/mineral
- Nonobstructive nephrolithiasis bilaterally in the kidneys

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The top differential for this patient's liver enzyme changes is an emerging gallbladder mucocele. Options for management depend on the ongoing clinical picture. If the patient is asymptomatic, medical management with ursodiol +/- broad spectrum antibiotics could be attempted empirically with monitoring of the liver enzymes for improvement. If improvement is noted, antibiotics should be continued until liver enzymes either normalize or plateau. If improvement is not noted, antibiotics should not be continued long term. If liver enzymes progress, and/or patient becomes clinical, characterized by nausea, vomiting, cranial

abdominal pain, etc., a cholecystectomy may be warranted. Additionally, a fine needle aspirate of the liver could be considered if patients coagulation status is appropriate.





The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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